

**THE EFFECT OF USE OF VARIATIONS IN HEAT RESISTANT GLOVES  
ON THE COMFORT OF CRACKER FRYING WORKERS AT THE  
KAPANEWON BANGUNTAPAN CRACKER FACTORY**

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**ABSTRACT**

**Background:** The cracker factory business poses a risk of danger to the safety and health of its workers. Potential dangers often occur in cracker factories, namely in the frying area. Based on the survey, it is known that the temperature in the cracker frying area is 31°C, the oil temperature when frying crackers is 170°C, 80% of workers have experienced work accidents, namely being hit by splashes of hot oil, resulting in injuries to their hands such as blisters. This situation is because 100% of workers do not use gloves. It is important for workers to use gloves comfortably and not create new dangers. The concept of comfort in using personal protective equipment is that workers feel comfortable and are not disturbed while using personal protective equipment while working.

**Objective:** To determine the effect of using a variety of heat-resistant gloves on the comfort of cracker frying workers at the Kapanewon Banguntapan Cracker Factory.

**Method:** This research is a Quasi experiment with a Post-test Only Group Design which was carried out in July 2024. The population of this research is all cracker frying workers who work in three Kapanewon Banguntapan Cracker Factories, namely 30 people. The sampling technique was carried out using total sampling, namely the entire population of cracker frying workers in the three cracker factories, namely 30 people. Data analysis used the Kruskall Wallis statistical test.

**The research** results showed that 13,5% of respondents felt comfortable using heat-resistant gloves made of cloth, 100% of respondents felt uncomfortable using heat-resistant gloves made of cloth with corn husk lining and 73% of respondents felt comfortable using heat-resistant gloves which is made of fabric with a layer of glasswool. The results of the Kruskall Wallis test show that there is a significant difference between the comfort of using 3 variations of heat-resistant gloves (*p*-value = 0,000).

**Conclusion:** Heat-resistant gloves made from cloth with a layer of glass wool are the most comfortable for cracker frying workers at the Kapanewon Banguntapan Cracker Factory.

**Keywords:** heat-resistant gloves, comfort, cracker fryer

# PENGARUH PENGGUNAAN VARIASI SARUNG TANGAN ANTI PANAS TERHADAP KENYAMANAN PEKERJA PENGGORENG KERUPUK DI PABRIK KERUPUK KAPANEWON BANGUNTAPAN

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## INTISARI

**Latar Belakang:** Usaha pabrik kerupuk mempunyai risiko bahaya terhadap keselamatan dan kesehatan pekerjanya. Potensi bahaya sering terjadi di pabrik kerupuk yaitu di area penggorengan. Berdasarkan survei diketahui suhu di area penggorengan kerupuk yaitu 31°C, suhu minyak pada saat menggoreng kerupuk yaitu 170°C, 80% pekerja pernah mengalami kecelakaan kerja yaitu terkena percikan minyak panas sehingga mengakibatkan luka pada tangan seperti melepuh. Keadaan tersebut dikarenakan 100% pekerja tidak menggunakan sarung tangan. Penggunaan sarung tangan penting digunakan oleh pekerja secara nyaman dan tidak menimbulkan bahaya baru. Konsep kenyamanan dalam penggunaan alat pelindung diri yaitu pekerja merasa nyaman dan tidak terganggu selama menggunakan alat pelindung diri saat bekerja.

**Tujuan:** Diketahuinya pengaruh penggunaan variasi sarung tangan anti panas terhadap kenyamanan pekerja penggoreng kerupuk di Pabrik Kerupuk Kapanewon Banguntapan.

**Metode:** Penelitian ini adalah *Quasi experiment* dengan desain *Post-test Only Group Design* yang dilaksanakan bulan Juli 2024. Populasi penelitian ini adalah seluruh pekerja penggoreng kerupuk yang bekerja di tiga Pabrik Kerupuk Kapanewon Banguntapan yaitu 30 orang. Teknik pengambilan sampel dilakukan secara *total sampling* yaitu keseluruhan populasi pekerja penggoreng kerupuk yang ada di tiga Pabrik Kerupuk yaitu 30 orang. Analisis data menggunakan uji statistik *Kruskall Wallis*.

**Hasil** penelitian didapatkan 13,5% responden merasakan nyaman menggunakan sarung tangan anti panas yang terbuat dari kain, 100% responden merasakan tidak nyaman menggunakan sarung tangan anti panas yang terbuat dari kain dengan lapisan kulit jagung dan 73% responden merasakan nyaman menggunakan sarung tangan anti panas yang terbuat dari kain dengan lapisan *glasswool*. Hasil uji *Kruskall Wallis* menunjukkan ada perbedaan yang bermakna antara kenyamanan menggunakan 3 variasi sarung tangan anti panas (*p-value* = 0,000).

**Kesimpulan:** Sarung tangan anti panas yang terbuat dari kain dengan lapisan *glasswool* yang paling nyaman bagi pekerja penggoreng kerupuk di Pabrik Kerupuk Kapanewon Banguntapan.

**Kata Kunci :** sarung tangan anti panas, kenyamanan, penggoreng kerupuk